Graduate Assistant Module CHEM40340 (Demonstrator Module)

Objectives: This is a mandatory 5 ECT course with two separate components: theory and practice

1. Students must complete the on-line : Self-directed CAPSL Module or Workshop TBC*
   * Module went offline last semester – we are working with CAPSL on alternative and will update soon

2. The second component involves in-lab demonstrator training and assessment. At the outset of every lab demonstrators will be provided an opportunity to become familiar with the experiments that they will oversee in lab. The staff member in charge of the lab (hereafter named the 'academic') will also provide examples of laboratory reports and guidelines on grading.

   The purpose of the in-lab module is to:
   a) To make demonstrators more aware of the key role that preparation plays in successful teaching
   b) To give demonstrators an opportunity to further improve their teaching skills in the laboratory environment by acting on feedback from both their supervisors in the teaching laboratory (*i.e.* the academic) and the undergraduate students they teach.

In-Lab Module Structure

I. The module normally runs over the course of one semester – assessment is made based on performance over minimum of 5 sessions.
II. The assessment consists of four parts:

a) The demonstrator must **review the experiment(s),** the practical skills, techniques and theory required for the practical course that she/he will demonstrate before the start of the practical course and anticipate any challenges that may arise during the course of the practical including challenges the students my encounter.

b) After the first week of lab the **demonstrator must complete a short report** (1-page max) that reviews the actual challenges experienced by students in the lab, including a direct comparison with any anticipated challenges he/she identified in part a) above. In the second part of the report the demonstrator should indicate what changes he/she will make to ensure students succeed better in the lab. This report must be presented to the academic before week 3 of the lab.

c) Towards the end of the third week of lab undergraduate students will be asked to fill out an **anonymous survey**, the results from which will form the basis of an **interview between the academic and the demonstrator**. This can take place in the laboratory if convenient and will discuss the feedback from the students, and agree a course of action as to how the demonstrator might make improvements. If no areas for improvement are identified by the undergraduates, areas for improvement should be identified by the demonstrator and the academic (nobody is perfect).

d) **A final report (1-page max)** from the demonstrator after the lab is complete. The report should list things that the demonstrator changed as a result of student feedback and his/her interpretation of this feedback, including recommendations for future demonstrators of these experiments(s).

General Regulations.

Demonstrators can only be awarded credits for this module once over the course of their studies.

Demonstrators must inform the office, the academic and the designated technical staff member of the date they wish to start the module at least one week in advance. The designated technical staff member in the Cocker Lab is Mr. Peter Brien and in the Physical Chemistry Laboratory is Mr. Patsy Greene.

The student surveys will be carried out by the technical staff, at the request of the demonstrator. **It is up to the demonstrator to agree with the technical-officer contact and the academic the times and dates for the interviews and surveys at least one week in advance**. Demonstrators need to organise the date/time of the interview with the academic. Nobody will do this for you: credits will not be awarded if the requirements stated above are not met. No exceptions.

Demonstrators must not give out the survey forms or collect them, alter the surveys, or influence the students in any way while they are filling them out. To do so will result in failure of the module.

Each page of the student surveys will be signed and dated by the technical officer and given to the demonstrator at the end of the session in which they were collected. Undergraduates will be made aware of the nature of the exercise – they will know that demonstrators take the module in an attempt to improve their laboratory teaching skills. It will also be made clear that a demonstrator who refuses to tell them something they should know/calculate for themselves (*i.e.* the answers to lab-book questions *etc.*) is not underperforming or being unhelpful. It will be explained that both praise and constructive, fair criticism of the demonstrator is useful. Unjustified/unacceptable comments from undergraduates in surveys will be censored/cut out by the technical staff before the surveys are handed over to the demonstrator.

Guide for postgraduate students taking this module

This is a mandatory module. However, the responsibility for organising the module lies solely with the demonstrator. If surveys are not taken, forms not handed in, reports not given to academics/the office (on time), forms handed in late or meetings are not arranged etc. no credits will be awarded. **Any attempt to discuss the student surveys or feedback with the undergraduate students will result in no credits being awarded and the demonstrator will not be allowed to take the module again.**

Inform the office, the academic in charge of the lab (not a senior demonstrator) and the technical-officer contact at least one week in advance of the time that you wish to be assessed.

Submit the initial short report to the academic in charge before week 3 and have them date and sign it.

Arrange in advance with the technical officer when the surveys need to be done (again, at least one week's notice) and remind them again on the day.

Note that you have to insert the date and your name on the top of the student survey form then print and photocopy the form and hand them to the technical officer.

Arrange with the academic in charge when to have a meeting to discuss the student survey results.

- Arrive 10 minutes before the start of the practical class. Demonstrate to the students in the normal way. Either at the end of the second session or the very beginning of the third, the students will be surveyed by the technical officers. The technical officer will sign and date each page of the survey, and record how many were taken. He/she will then pass the survey results back to you.
- Consider the feedback in the student surveys – and reflect on your performance. It may be helpful to ask yourself questions such as: How can I improve as a teacher and a demonstrator? How can I engage more with the students I teach? How can I better prepare for experiments etc.
- Meet with the academic. This should be an informal meeting, where you both discuss how you might improve, taking the feedback from the student surveys into account. This meeting should be 5-10 min. and should end with a plan as to how you could improve as a demonstrator. You need to take notes of what is discussed, in order to generate your final report.

- Implement the plan over the next three laboratory sessions. This will require effort and concentration on your part.
- Complete your final report detailing what you have learned about yourself as a demonstrator and teacher and the changes you have made that resulted in better outcomes for students.

You also need to submit copies of all the documentation in a folder, clearly marked with your name, to the academic involved in the laboratory sessions you were assessed in. This must happen within one week of finishing the laboratory sessions you were assessed in.

Guide for technical officers

- It is up to the demonstrator to ask you at least one week in advance to carry out the survey for them. The module is comprised of just a single survey. You do not have to do this on the day because they forgot.
- Please hand out the surveys to the demonstrator's group of students and explain that this is a voluntary survey, leave it with the students for 10 min and then collect. Please do not let demonstrators play any role in the survey – the exercise has no value if they are a part of it.
- Please sign and date each page of the survey, and write the name of the demonstrator on the front page.
- Please check the 'comments' section – any personal or inappropriate comments should be physically cut out (not blacked out). Criticism/praise of performance is ok (and useful), but no personal comments or comments using inappropriate language should be passed on to the demonstrator. The same goes for comments not related to the demonstrator's performance in the laboratory.
- Please keep a record of the demonstrator's name, and how many students took the survey. Then pass this on to the academic asap after the survey has taken place.
- When this is done, please hand the surveys to the demonstrator, who looks after them from there.

Guide for academics

Please have a look at the module descriptor/regulations before reading these guidelines. Also note that the operation of the module will depend on the lab structure, i.e. whether demonstrators cover one of more experiment in the lab.

- It is up to the demonstrator to tell you and the office at least one week in advance that they are taking the module. Please record the names of the students taking the module. It is up to them to organise everything, but you should know who is taking the module in each lab.
- Please mention the module to undergraduates in the first pre-practical talk of the session.
- The demonstrator must turn up on time (before the lab starts).
- This module is about improving demonstrator performance – if the student does not submit a report before the start of the second week that assesses the challenges associated with the lab – they are assigned a failed grade. Please enforce this rule. There is no major loss of time to the graduate student, just inconvenience. If they are allowed to turn up late, or hand up late, sub-standard material then the whole exercise becomes a 'box-ticking' exercise and a complete waste of time.
- After 2 sessions (*i.e.* during the third session) the demonstrator will hand you the surveys and request a short, informal interview (10 minutes max.). This can take place in the lab if convenient. Please check that the survey results are initialled and dated by the technical officer and ensure that you are handed the right number of surveys. The technical officer will give you this information beforehand.
- Please review the surveys and agree a course of action as to how the demonstrator can improve his/her teaching skills and performance in the lab. The demonstrator will keep notes of this meeting – specifically putting in writing the steps that should be taken - which you should sign and date. Otherwise this meeting should be informal, more of a constructive chat than anything else. Please focus on the positive, while pointing out obvious areas for improvement.

- It is significant improvement in performance (not absolute levels of performance) over a relatively short examination period that is important in this exercise. A demonstrator who prepares properly, turns up on time and demonstrably takes steps to improve his/her teaching over the 5 experiments passes the module. Demonstrators who try to cut any corners or do not make a serious effort to improve fail the module.
- Please inform the office as to whether the student has passed or not as soon as possible after the last lab session. This is vitally important, as in some cases credits for this module will need to be assigned for students to be allowed to graduate etc. At the end of the academic year, please submit all the documents to the office.

Guide for the office

- The demonstrators will inform you in advance that they wish to take the module, and will give you the dates, the name of the academic involved, and lab sessions involved.
- Please set up a spreadsheet with this information
- At the end of the module the demonstrators will submit proof of completion of the blackboard module or workshop.
- The academics will inform the office by email of a pass/fail grade for each student – at the latest by the end of the second semester. This should be recorded in the gradebook and credits awarded when both in-lab and blackboard/workshop information had been received